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Illiteracy and Educational Statistics.

The collection of statistical data to illustrate the simplest elements of intellectual accomplishment and to serve as a measure of society's activities in educating the people of the land was first attempted for the whole country in the census of 1840, and this branch of census work has been continued in each succeeding enumeration. From the first there have been two main lines of inquiry: first, the data collected on the general population schedules concerning the literacy of the population, that is, the ability of each individual over a certain age to read and write; secondly, the data in regard to the number of teachers, the educational institutions, expenditure, and other facts which would illustrate the great social effort being made to uplift the people by education, and the degree to which such opportunities are used as indicated by the number of pupils attending. The subject, therefore, may be conveniently divided into two parts, illiteracy and educational statistics.

Illiteracy.

In the census of 1840 an enumeration was made of the number of white persons over 20 years of age who could not read or write. In 1850 a beginning in the classification of illiterates was made, distinguishing them as white and free-colored, native and foreign. The returns were tabulated by counties. The superintendent expressed the opinion that the statistics, so far as the whites were concerned, were reliable. The same classification was followed in 1860, but the returns were not tabulated for minor civil divisions. In 1870 a change was made in the form of the schedule,

and the table formerly reading, "Persons over 20 years of age who cannot read or write" was subdivided into two columns: "cannot read," and "cannot write." The editor notes "that, great numbers of persons rather than admit their ignorance, will claim to read, who will not pretend that they can write. . . . If a man cannot write, it is fair to assume that he cannot read well; that is, that he really comes within the illiterate class. . . . Taking the whole country together, hundreds of thousands of persons appear in the class 'cannot write' over and above those who confess that they cannot read. This is the true number of the illiterate of the country; the class which it is now necessary to treat, for the simple safety of our political institutions."¹

The limitation of age was also modified so as to include all persons above ten years of age. "Those between the ages of ten and twenty who cannot read and write are to constitute the class which in ten years more will form the hopelessly illiterate of another census. It is as important to determine the numbers of our youth who are growing up in ignorance, . . . as to determine the number of those who have passed the period of youth in ignorance and who will, with few exceptions, remain illiterate through life."² At the request of the Commissioner of Education and others interested in public education, the illiterates were divided according to age into three classes, 10-15, 15-20, 20 and over. The classification then is as follows: cannot write, distinguished as white and colored, and native and foreign. Once more the returns are given by counties. There is also a map showing illiteracy of the eastern half of the United States.³

¹ Ninth Census. Population and Social Statistics, xxx.

² *Ibid.*

³ *Idem.*, 393.

The census of 1880 in general followed that of 1870. Separate columns are given for those above ten years of age unable to read and those unable to write. Illiterates are also distinguished as white, native white, and foreign white, 10 years of age and upward, and the white and colored for the three age groups distinguished by sex. The tables are not worked out for subdivisions below that of states.

In 1890 the tabulation of statistics of illiterates was very wisely carried much further, although little change was made in the form of questions asked.¹ Of special importance was the classification of parentage of the native white population. This is a proper distinction, as it might be expected that those of foreign parentage would not be so eager to force their children to take advantage of educational opportunities as would those whose native ancestry was of a longer period. A distinction was made, also, in the colored population, between those of negro descent and the Chinese, Japanese and civilized Indians.

A new age classification is presented as follows: 10-14, 15-19, 20-24, 25-34, 35-44, 45-54, 55-64, 65 and over, and unknown. Through such a classification as this, it is possible to draw some inferences as to whether a state is keeping up an educational pressure or not. There ought to be by right a lower percentage of illiteracy among the native whites of native parentage in the age group 10-14 than in the group 15-19; and in every one of the North Atlantic states this is the case. In the South Atlantic states, however, beginning with Delaware, with the exception of Maryland, the percentage for the lower age group is greater in comparison for this whole section of states, being 14.8 for the age group

¹ Eleventh Census. Population, 2: xxx-1x and 193-252.

10-14 and 11.5 for the age group 15-19. Of course this increase in the lower age group may be due to the fact that there is more deception to be found in the older group than in the younger, or that opportunities to read and write have come to the population after they have passed the age of 14.

Such an age classification will also show how far an American state influences a foreign-born population provided it can get its educational machinery at work upon it early enough. For example, Massachusetts with her compulsory law has exerted such activity that among the foreign-born population, in the age group 10-14 but 3.4 per cent are illiterate, while in the age group 15-19 the percentage is 11. For the United States as a whole the respective percentages are 5.9 and 10.1

Of equal importance is an age group classification in studying the education of the colored race. It is not encouraging, for example, to find in Alabama that, while for the age group 15-19 the illiterates comprised 55.8 per cent, in the age group 10-14, they were 52.5 per cent. In Mississippi, however, there is a decrease from 44.4 per cent in the higher age group to 36.6 in the lower.

No percentages are worked out for age subdivisions above 20, and it is unfortunate, though by no means an important error, that in some minor groupings the age classification for the absolute numbers of illiterates is not the same as obtains in the regular age classification. Of the total population, for example, the general age classification is as follows: 20-24, 25-29, 30-34, 35-44, 45-54, 55 and over. The illiterates are classified as 20-24, 25-34, 35-44, 45-54, 55-64, 65 and over. The combination of figures for the age group 25-34 therefore requires a previous adjustment.

Again, the degree of illiteracy is distinguished by reporting those who can read but cannot write and those those who can neither read nor write, and these are further classified in regard to sex, nativity and parentage. Whether a part of this tabulation might not be abandoned in favor of others is, I believe, a fair question to raise. For example, it would be helpful to know whether the native born illiterates, particularly of the age classes 10-14, and 15-19, were born within their own state; and of the foreign born, it is highly desirable that their particular nationality should be given in order that we may know what countries are furnishing us the largest amount, not merely of temporary, but of more or less permanent illiteracy.

In addition to classification by states, statistics are given for 124 cities having 25,000 or more inhabitants, for sex, nativity, degree of illiteracy, and age.

A new and interesting inquiry was introduced in 1890 in regard to ability to speak English.¹ There are tables showing the total number of persons 10 years of age and over who cannot speak English, classified by foreign nativity, parentage and color, for states and also cities having 25,000 or more inhabitants. These are classified as to sex and according to the usual age groups. Information was also gathered upon the schedules regarding the particular language spoken by the individual unable to speak English, but for lack of time the data as to the various languages spoken were not worked up. Such a tabulation would be of great interest in connection with the statistics of immigration, for in that way an estimate might be made of the degree of assimilation of foreigners from different countries. It is to be hoped that it will be insisted upon in the twelfth census.

¹ *Idem.*, 1x-lxv, and 253-278.

In the use of statistics of illiteracy, questions arise as to the probable accuracy of the data. Here it is impossible to speak with any positiveness, since it is difficult, and for the whole country impossible, to secure any index by which we can test returns. In Massachusetts, reports of illiteracy were published in the state censuses of 1875 and 1885. The several censuses give the number of illiterates as follows :

1875 state census	-----	104,513
1880 U. S. "	-----	92,980
1885 state "	-----	122,263
1890 U. S. "	-----	114,468

It will be observed that the state census of five years previous to that of the United States enumerates more illiterates than does the latter; personally, however, I do not believe that a variation of about 10 per cent in an inquiry of this character, necessarily invalidates the usefulness of the returns.

In the grouping of the statistics of illiteracy there is another consideration as to whether the census should follow the customary grouping of states followed in other classifications of the population. For example, what is known as the Western division includes New Mexico. This has 42.8 per cent of native white illiterates and Arizona has 7.9. The next highest in the scale of illiteracy in this group is Colorado with 3.8.¹ New Mexico and Arizona have an entirely different past history from that of the other states. They include a native white population, of Spanish descent, which has remained for a long time stationary in its educational development. If we should throw out New Mexico and Arizona, the percentage of illiteracy for the Western group in the class of native whites would be less than

¹ *Idem.* xxxv.

that of the North Atlantic division. So, too, in the South Central division Missouri is included which has a different social past than that of the other states included in this group. It would also be helpful if tabulation could be made of rural districts as distinguished from the large cities, and possibly the tabulation might include a few states by counties.

Educational Statistics.

The statistics of school attendance are furnished for the census in two ways: first, by returns on the general population schedules; and secondly by reports made by educational institutions in a special monograph. From the population schedules, the character of school attendance is statistically described¹ as follows: the number attending school by nativity, parentage of native whites, age groups, as under 5, 5-9, 10-14, 15-19, 20 and over, and these several age groups according to nativity, parentage and sex.

These tables are not worked out in a form as convenient as in the case of statistics of illiteracy. A table is presented for the whole country which shows the percentage of persons attending school, and the total persons of the several age groups 5-9, 10-14, 15-19, 20 and over² but unfortunately percentages are not worked out for the several states. If these tables, therefore, are used for local work, reference must be made to the general population returns in order to secure comparative results.

Detailed tables are also given showing the months of school attendance as one month or less, 2-3 months, 4-5 months, 6 months or over, and this is given for the several groups of population according to nativity and

¹ *Idem.* xxvii-xxx and 135-192.

² *Idem.* xxvii.

parentage. As to the accuracy of these reports there is considerable doubt. For example, the number of native whites of native parentage, 10-14 in Massachusetts, reported as attending school was 71,065.¹ The total number of such children, however, in the state of that age is tabulated in the general population tables as 75,017.² Native whites of foreign parentage, 10-14, are given as 79,406³ against a total population of the same age group of 86,530. Of foreign whites 10-14, those attending school are returned as 23,291⁴ against a total population of 28,820.

The special monograph on education may be regarded as on the whole successful. "In marking out the lines of inquiry for the eleventh census it was determined to use a small number of questions that might be readily answered and whose results could be quickly published. . . . It was the effort to gather educational facts in the following order: first, according to their importance; second, according to the readiness with which they could be furnished; third, according to the facility with which the results could be combined and published. Under the first principle of selection it was desirable to know (a) How many go to school? (b) Who go to school, indicated by age, sex, and race? (c) How long do they go? (d) What is the character of the work done, as elementary, secondary, or superior? questions applicable in nearly every point to both teachers and pupils. The financial questions were left to be treated by the census division of wealth, debt, and taxation."⁵ The expert in charge of this investigation makes an interesting and intelligent criticism of the difficulties in the way of

¹ *Idem.* 150.

³ *Idem.* 154.

² *Idem.* 44.

⁴ *Idem.* 158.

⁵ Eleventh Census. Report on Education, 1.

securing uniformity of returns. These it is not necessary to rehearse. The difficulties appear to be fully realized, and the editor has consequently been guarded in the deductions which might be drawn. This special monograph is to be commended, since it is the first time the parochial schools have received so detailed a reporting, and statistics for the public schools are also furnished by counties of the several states.

At the same time it is extremely unfortunate that these returns of school enrollment should not agree better with the returns of school attendance printed in the volume on population. The school enrollment, including public, private and parochial schools, largely exceeds the returns given on the general schedules of school attendance. The value, therefore, of one or the other of these returns is immediately open to suspicion. The total enrollment of pupils derived from the reports of schools of the United States is 14,373,670.¹ The return of total persons "attending school during the census year" is 11,674,878,² a difference of two million and a third. Again, the total number of teachers returned in the occupation schedules is 341,952;³ returned by the school enrollment, is 422,929. Even if we should add the professors in colleges and universities, teachers of art and teachers of music, it would be difficult to reach the latter enrollment.

In view of the fact that returns based upon school or institutional reports are annually published by the United States Bureau of Education, it is believed that this field of inquiry might well be omitted in the census. The difficulties so clearly appreciated by the editor

¹ *Idem.* 51.

² Eleventh Census. Population, 2 : xxvii.

³ *Idem.* 304.

of the census monograph are of such a character that the statistical returns need the uninterrupted treatment and consideration of a permanent statistical system such as might to advantage be further developed in the Bureau of Education.

DAVIS R. DEWEY.

Massachusetts Institute of Technology.